

REMARKS

Claims 1-40 were pending in this application. Claim 41 was added. No claims were canceled. Hence, claims 1-41 are now pending in the application.

Claims 1 and 21 were amended to clarify that the size of the packet type and the coding of the packet type are dependent upon one another. Support for the amendment may be found throughout the specification in general and at least on pages 20-23.

Claim 41 was added in order to more fully define the scope of the claimed invention. support for the new claim may also be found throughout the specification in general and at least on pages 20-23.

The drawings were amended to conform Figures 4-5 to their respective descriptions in the specification. Proposed drawings are attached herewith.

No new matter was added.

Rejections / Objections

The Examiner objects to the drawings because they fail to comply with 37 CFR 1.84(p)(5) in that they do not include reference numbers 50 and 60, which were mentioned in the specification.

The Examiner further objects to the specification because the reference numbers used to describe Figure 4 do not match the reference numbers shown in Figure 4.

Claims 1-2, 11-13, 21-22, and 31-33 were rejected under 35 U.S.C. 102(e) as being anticipated by the Bluetooth Core Specification Version 1.0B ("Bluetooth").

Claims 1-3, 8-9, 10-11, 14, 16-17, 21-23, 28-29, 30-31, 34, and 36-37 were rejected under 35 U.S.C. 102(b) as being anticipated by the article "Improving Wireless LAN Performance via Adaptive Local Error Control" by Eckhardt et al. ("Eckhardt et al.").

Claims 4-5, 15, 24-25, and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Eckhardt et al. in view of U.S. Patent 5,920,597 (Khayrallah et al.).

To the extent the rejections may be applied to the claims as amended, these rejections are respectfully traversed.

The Claimed Invention

The invention, as recited in independent claim 1, is directed to a method for improving a network connection in a wireless network. The method comprises the steps of determining at least one quality measure for a channel of the network connection, and estimating a quality condition for the channel based on the at least one quality measure. The method further comprises the step of selecting a packet type to be transmitted over the channel based on the quality condition, **wherein a size and a coding of the selected packet type are dependent upon one another.**

Independent claim 21 is directed to a communications device and recites similar limitations in apparatus form.

Arguments in Support of the Claims

As an initial matter, Applicants have amended the drawings to address the concerns raised by the Examiner. Accordingly, withdrawal of the objections against the specification and drawings is respectfully requested.

With respect to amended claims 1 and 21, these claims now recite that the selected packet type's **size and coding are dependent upon one another.** Nowhere does Bluetooth, Eckhardt et al., or Khayrallah et al. (or any other art of record) disclose or suggest selecting a packet type where the size and the coding of the packets are dependent upon one another. On the contrary, Eckhardt et al. specifically states that the FLEX adaptation policy adapts the packet size and degree of FEC redundancy **independently.** (Eckhardt et al., section 6.3, 7th paragraph.)

To illustrate the difference, assume a given channel has a strong interferer present and is therefore interference limited. In such a case, both the claimed invention and the FLEX adaptation policy of Eckhardt et al. would recognize that the size of the data packets needs to be reduced and switch the packet type accordingly. Assume further that the channel is also noisy. The FLEX adaptation policy of Eckhardt et al. would detect the noise and would then increase the degree of FEC redundancy, since this parameter is adapted **independently** of the packet size. However, in an environment that is interference limited, FEC redundancy (i.e., error coding) would have little effect on the data throughput due to the strong interferer. Therefore, it would be an inefficient use of resources to implement a high degree of FEC redundancy. This notion is reflected in the claimed invention, where the size and the coding of a data packet are adapted in **dependence** upon one another. The result is that error coding may actually be minimized in an environment that is interference limited in order to conserve resources.

Accordingly, because none of the cited prior art references disclose or suggest selecting a packet type where the size and the coding of the packets are dependent upon one another, withdrawal of the rejections against claims 1 and 21 is respectfully requested.

As for dependent claims 2-20 and 22-41, although they may recite independently allowable subject matter, these claims depend from claims 1 and 21, respectively, and are therefore allowable for at least the same reasons. Accordingly, withdrawal of the rejections against the dependent claims is also respectfully requested.

CONCLUSION

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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Respectfully submitted,

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ANNOTATED SHEETS SHOWING CHANGES

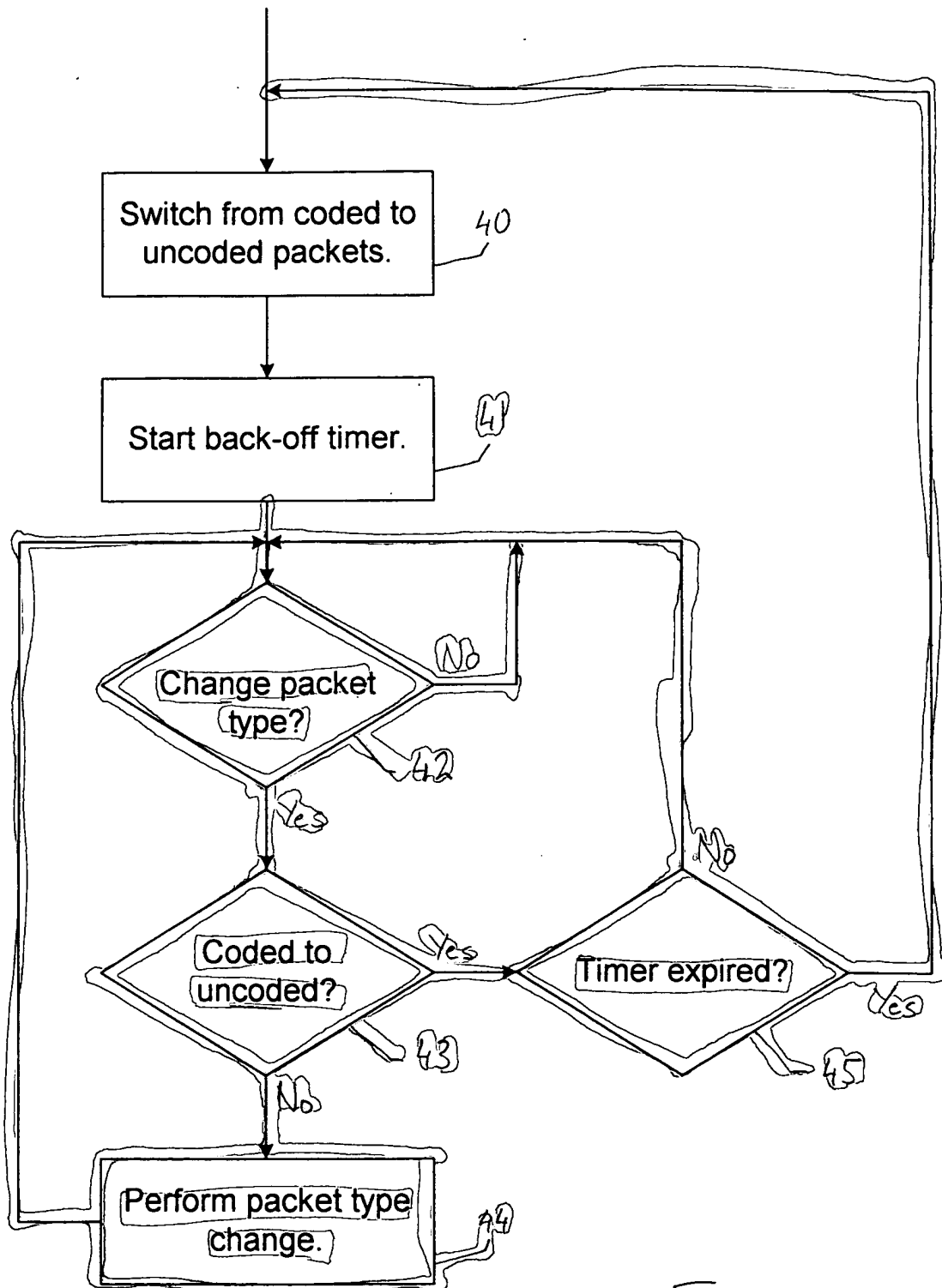
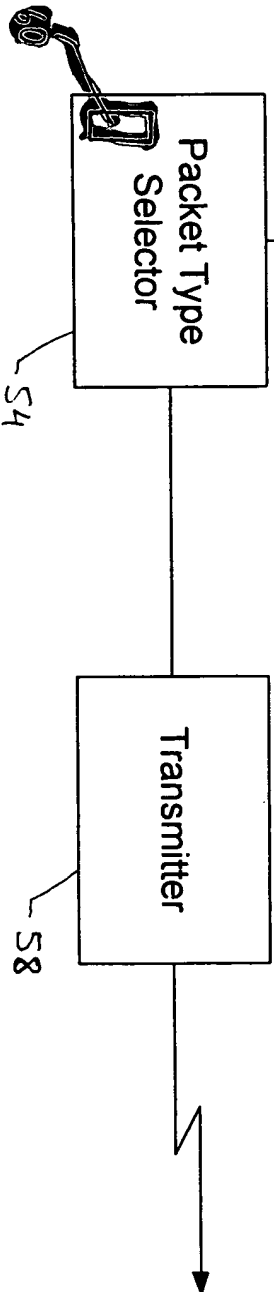
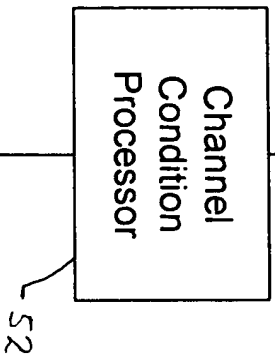
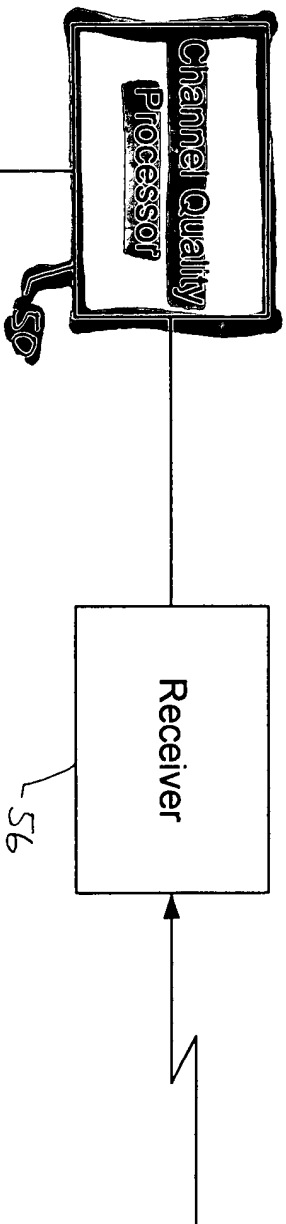


FIG. 4

22 →



From / To
Network

FIG. 5

